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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/798,107

03/10/2004

Toshiya Matsuse

MM4701

5928

7590

12/29/2004

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EXAMINER

FERGUSON, MARISSA L


ART UNIT

PAPER NUMBER

2854

DATE MAILED: 12/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/798,107	MATSUSE, TOSHIYA	
	Examiner	Art Unit	
	Marissa L Ferguson	2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/10/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3 and 8 rejected under 35 U.S.C. 102(e) as being anticipated by Yamada (US Patent 6,565,273).

Regarding claim 1, Yamada teaches a bottom panel (4a), a fixed side panel (4b,4c) defining one side of the roll paper compartment in alignment with the width of the printer parallel to its longitudinal axis, a movable divider (7) defining another side of the roll paper compartment in substantial alignment with the width of the printer to adjustably accommodate different widths (Abstract) of roll paper and to facilitate placement of a remaining paper detector (44 and Column 5, Lines 44-48) in the roll paper compartment for detecting if the paper remaining on the paper roll is less than or equal to a predetermined amount and a movable divider (7) being removably (Column 5, Lines 41-43) assembled to the bottom panel and having a detector (44) mounting part for removably installing a remaining paper detector.

Regarding claim 2, Yamada teaches wherein a divider is removably connected to one of a multiple number of positions in said roll paper compartment space apart along the bottom panel for adjusting the location of the divider widthwise to the printer (Column 2, Lines 31-54).

Regarding claim 3, Yamada teaches wherein a divider comprises a plurality of protruding pins or a plurality of recessed holes and wherein the bottom panel has a set of complementary holes for inserting the pins, or a set of complementary pins for insertion into the recessed holes, at a selected one of the multiple positions widthwise to the printer (Column 7, Lines 66-67 and Column 8, Lines 1-13).

Regarding claim 8, Yamada teaches a compartment having a fixed first side (4b,4c) against which the roll paper is set, and an adjustable second side (7) that is movable within the printer to accommodate different widths of roll paper (Abstract) wherein the printer further comprises a roll paper near-end detector (44) disposed to a second side.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada (US Patent 6,56,273) in view of Hosomi et al. (US Patent 5,820,068).

Regarding claims 4 and 7, Yamada teaches the claimed invention with the exception of a remaining paper detector that is removably and adjustably mounted to one surface of a movable divider, so that the detector element can be positioned at a plurality of different angular positions (Column 1, Lines 1-6) around an axis of rotation substantially parallel to the widthwise direction of the printer. Hosomi et al. teaches a printer with a removably and adjustably mounted paper end-detecting unit (64) that is or can be positioned at different angular positions (Column 8, Lines 8-18) around a bolt (25). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the invention as taught by Yamada to replace the stationary detector thereof with the removable and adjustable paper detector as taught by Hosomi et al., since Hosomi et al. teaches that is advantageous to provide a simple structure that can improve workability at multiple angles.

Regarding claims 5 and 6, Yamada teaches the claimed invention with the exception of a detector element positioned at a specified height from the bottom panel and a detector element contacting a side of the paper roll stored in the roll paper compartment at a fixed height relative to a bottom panel with a paper roll having a hollow core for supporting the paper roll wherein the position of the detector element varies with the level of the hollow core in the roll paper compartment such that when the remaining roll paper drops below a predetermined level the detector element enters the hollow core and a detector that is adjustably mounted upon the divider so that the detector element height relative to the remaining paper detector can be adjusted. Hosomi et al. teaches a printer with a adjustably mounted detection unit that

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can be positioned at a height from a bottom panel with a paper roll with a hollow core that when the remaining roll paper drops below a level the detector enters the hollow core (Column 8, Lines 8-27, Lines 40-45 and Column 9, Lines 14-36).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the invention as taught by Yamada to replace the stationary detector thereof with the height adjustable detector as taught by Hosomi et al., since Hosomi et al. teaches that it is advantageous to maintain a constant relationship between a detecting means and recording paper when moved, in order to provide enhanced efficiency and quality detection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marissa L Ferguson whose telephone number is (571) 272-2163. The examiner can normally be reached on (M-T) 6:30am-4:00pm and every other (F) 7:30am-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marissa L Ferguson
Examiner
Art Unit 2854



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